MOSQUITO CONTROL IN CALIFORNIA

Why do we need mosquito control in California?

- Throughout history, no insect has been a more significant contributor to human discomfort, disease, and death than the mosquito.

  In California, public health efforts, including mosquito control programs, have succeeded in eliminating previously common mosquito-borne diseases such as malaria. Continued vigilance is necessary to prevent the reemergence of these diseases, and to reduce the occurrence of other mosquito-transmitted diseases still found in California, such as St. Louis encephalitis and western equine encephalitis.

- The recent introduction of the Asian tiger mosquito into California and the emergence of West Nile virus in the eastern United States underscore the need for safe, effective mosquito control.

  The accelerated movement of people through worldwide travel, immigration, and international trade increases the opportunity for exotic mosquitoes and diseases to be introduced into California.

- Even mosquitoes that do not carry disease affect public health because as they can annoy and distress people.

Who is responsible for mosquito control in California?

- Since 1915, special districts have protected Californians by providing mosquito abatement and vector control services.

  Today, 55 special districts and a variety of other municipal and county agencies are responsible for organized mosquito control in the state. Together, these agencies cover approximately 60,000 square miles (38% of the state), protecting more than 28 million Californians.

- Civic planners and individual property owners also share in the responsibility for effective mosquito control.

  Controlling mosquitoes in urban and residential communities depends on actions taken by individual property owners. Everyone can reduce the number of mosquitoes around their home by

eliminating standing water that provides a place for mosquitoes to breed. Breeding places include unused pools, discarded tires, buckets, and other containers.

Local planning agencies can effectively reduce mosquito populations by ensuring that systems that drain, store, or carry water are designed to discourage mosquito breeding.

- Mosquito and vector control districts and other public agencies that control mosquitoes follow the principles of **integrated pest management** (IPM). The foundation of this management practice includes **surveillance**, **prevention**, and **control.**

What is mosquito surveillance?

- Mosquito surveillance is a means of finding mosquitoes and determining the number and type of mosquitoes present. Mosquito surveillance is used to evaluate control efforts and monitor mosquito-borne diseases.

  Larval surveillance involves collecting immature mosquitoes from a variety of aquatic habitats. Adult surveillance involves collecting mature mosquitoes in traps, such as in light-traps baited with carbon dioxide.

- The public can assist vector control agencies in locating sources of mosquitoes by notifying their local agency of mosquito problems.

What is mosquito prevention?

- Prevention includes removing or changing mosquito-breeding places to make them less suitable for larval development. For instance, by eliminating sources of standing water around your property, or by changing the water frequently, you can reduce the number of mosquitoes breeding around your home.

- Public education is an essential part of a mosquito prevention program. Many mosquito and vector control districts offer educational material for schools and other community groups. This may include printed information, presentations at schools, community meetings and events, and opportunities to visit a district. Some mosquito and vector control districts have web pages that also contain links to other sources of information regarding mosquitoes.

What is mosquito control?

- Mosquito control measures target either the aquatic immature stages or the adult stage of the mosquito. Control of immature stages prevents mosquitoes from becoming biting female adults capable of transmitting disease, causing discomfort, and ultimately producing another generation of mosquitoes.

- "Larviciding" is the adding of a product to a water source to kill immature mosquitoes. Some of these products contain an insect growth regulator that prevents the larvae from becoming adults. Several larvicides, which are safe and easy to use, contain bacteria that the mosquitoes eat.

- "Biological control" is the use of a live organism to kill mosquitoes. The most commonly used biological agent is the mosquitofish, *Gambusia affinis*, which eats immature mosquitoes.

- "Adulticiding" is accomplished by spraying very small amounts of pesticides into the air with special equipment typically mounted on trucks or aircraft. Effective adulticiding requires proper equipment, specific weather conditions, and application at the proper time of day. Adulticides are used when larviciding is impractical or ineffective, or when emergency measures are necessary to prevent outbreaks of mosquito-borne diseases.

Who do I contact if I have more questions about mosquito control in California?

- Your local Mosquito and Vector Control District or Environmental Health Department.
- Mosquito and Vector Control Association of California: http://www.mvcac.org/
- California Department of Health Services / Vector-Borne Disease Section: arbovirus@dhs.ca.gov or http://www.dhs.cahwnet.gov/ps/dcdc/disb/disbindex.htm
- Additional information on pesticides and mosquito control is available on the Environmental Protection Agency (EPA) Web site: http://www.epa.gov/pesticides/factsheets/skeeters.htm

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